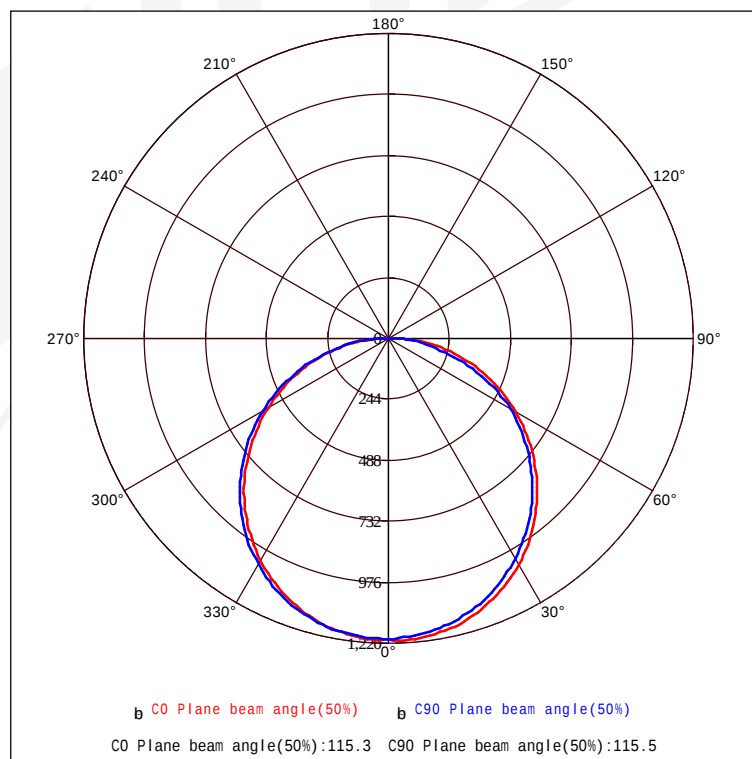


Goniophotometer Test Report

Measured Para U: 225.8V I: 382.0mA P: 45.00W PF: 0.521 Test LM: 3625.84lm						
Lamp Name: LED DOWN LIGHT			Lamp Type:		Weight(kg):	
Lamp ID: LPDL-50EMS01-Y			Lamp Spec: LPDL-50EMS01-Y		Shape Size:	
Manufactory: LIPER			Sur(m^2):		Protect Angle(Deg):	
Light Source Data			Photometric Data			
Model	LPDL-50EMS01-Y		Peak Value(cd)	1209.9	Efficiency(lm/w)	80.6
Nominal P(w)		1.0	Position	0.0,1.0	UP(C0-C180)	0.0
Rated Volt(v)		1.0	Total Flux(lm)	3625.843	Down(C0-C180)	50.4
Rated Flux(lm)		1.0	Up Flux Rate(%)	0.0	UP(C180-C360)	0.0
Illuminant QTY		1	Dw Flux Rate(%)	100.0	Down(C180-C360)	49.6

Planar Intensity Distribution Curve



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

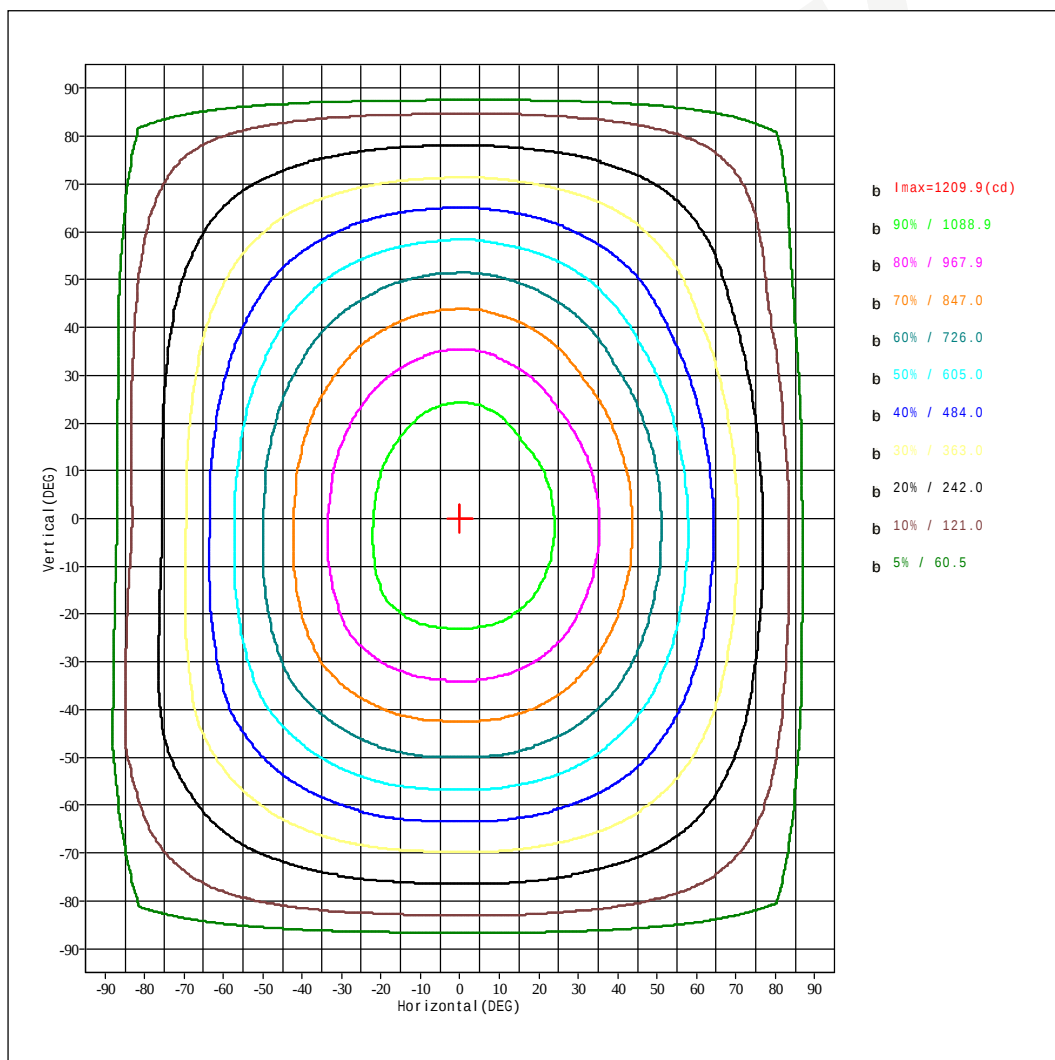
Humidity(%): 60

Date: 2026-7-15

Remark:

Measured Para U: 225.8V I: 382.0mA P: 45.00W PF: 0.521 Test LM: 3625.84lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-50EMS01-Y	Lamp Spec: LPDL-50EMS01-Y	Shape Size:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Planar IsoCandela Curve



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

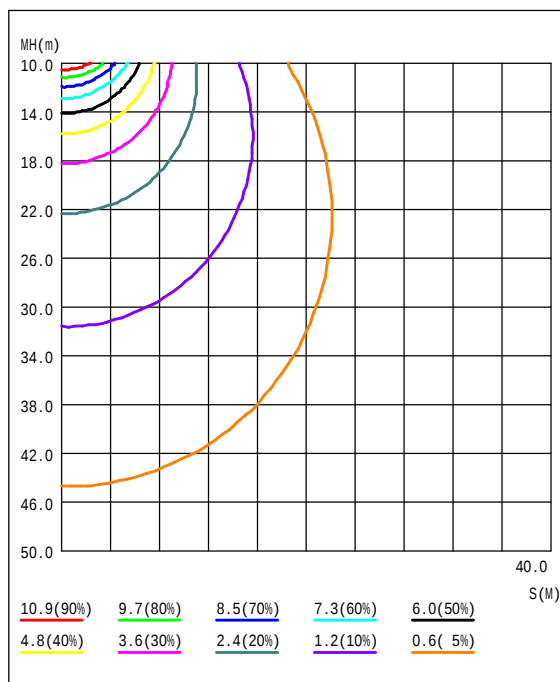
Humidity(%): 60

Date: 2026-7-15

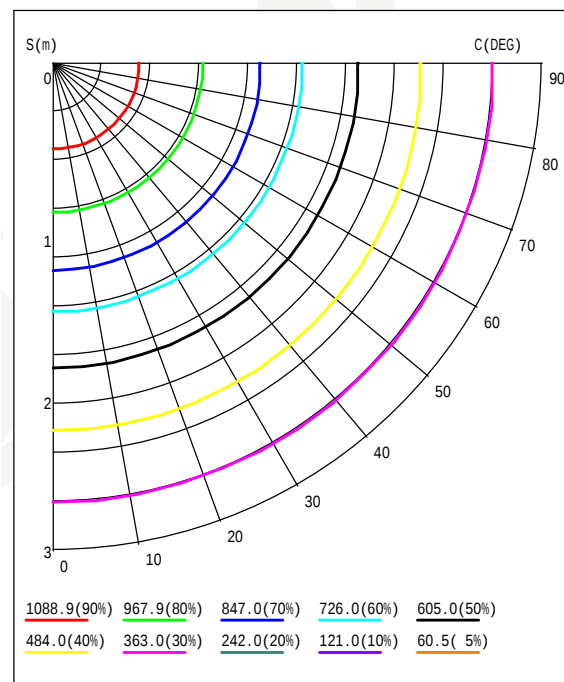
Remark:

Measured Para U: 225.8V I: 382.0mA P: 45.00W PF: 0.521 Test LM: 3625.84lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-50EMS01-Y	Lamp Spec: LPDL-50EMS01-Y	Shape Size:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Spatial ISOLUX Curve



Planar ISOLUX Curve



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-7-15

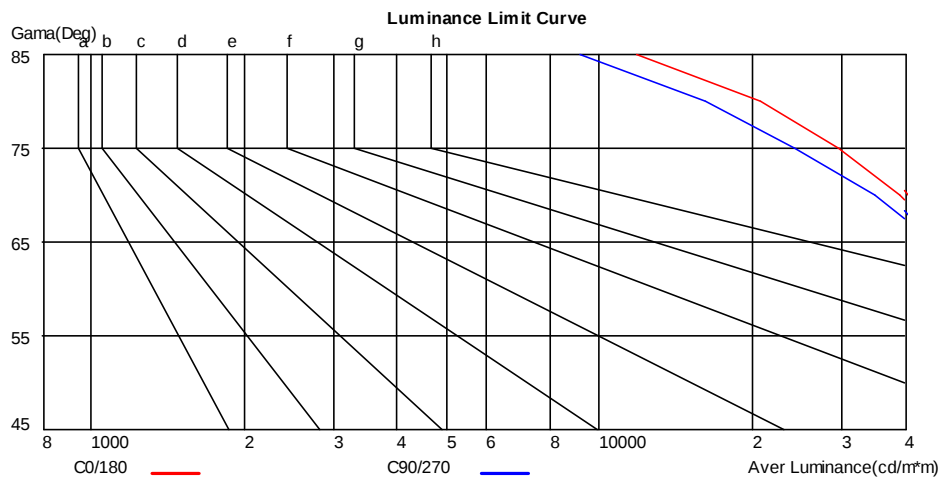
Remark:

Measured Para U: 225.8V I: 382.0mA P: 45.00W PF: 0.521 Test LM: 3625.84lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-50EMS01-Y	Lamp Spec: LPDL-50EMS01-Y	Shape Size:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Luminance Limit Curve

Aver Luminance(cd/m²m)									
Gm(Deg)	45	50	55	60	65	70	75	80	85
C0	83461.2	75317.9	66782.1	57816.1	48555.6	39211.3	29768.5	20817.7	11833.0
C90	80637.3	72648.9	64229.7	55474.4	45512.7	34877.7	24271.2	16230.8	9188.5

Glare									
Glare	Class	Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zyg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

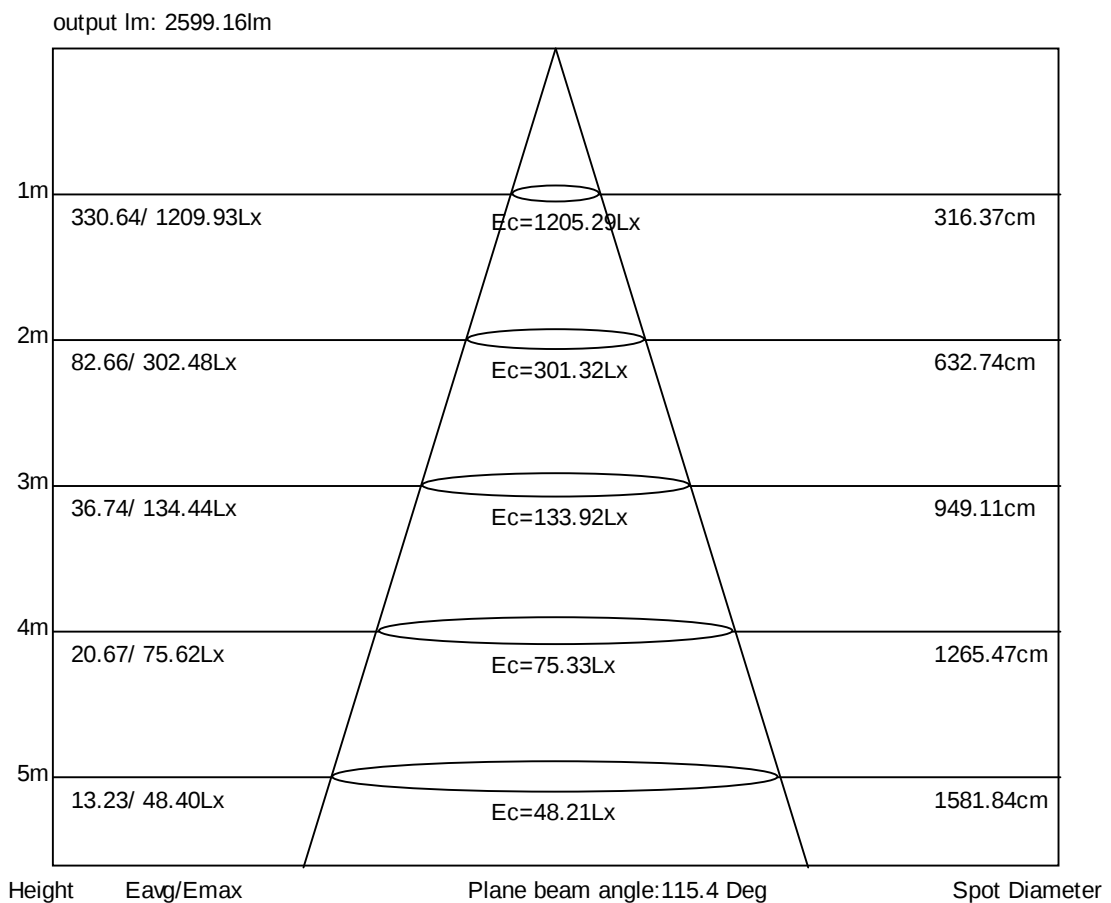
Humidity(%): 60

Date: 2026-7-15

Remark:

Measured Para U: 225.8V I: 382.0mA P: 45.00W PF: 0.521 Test LM: 3625.84lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-50EMS01-Y	Lamp Spec: LPDL-50EMS01-Y	Shape Size:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

Average Illumination



Gama Angle Range: -90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range: 0 - 180(Deg)

C interval(Deg): 45

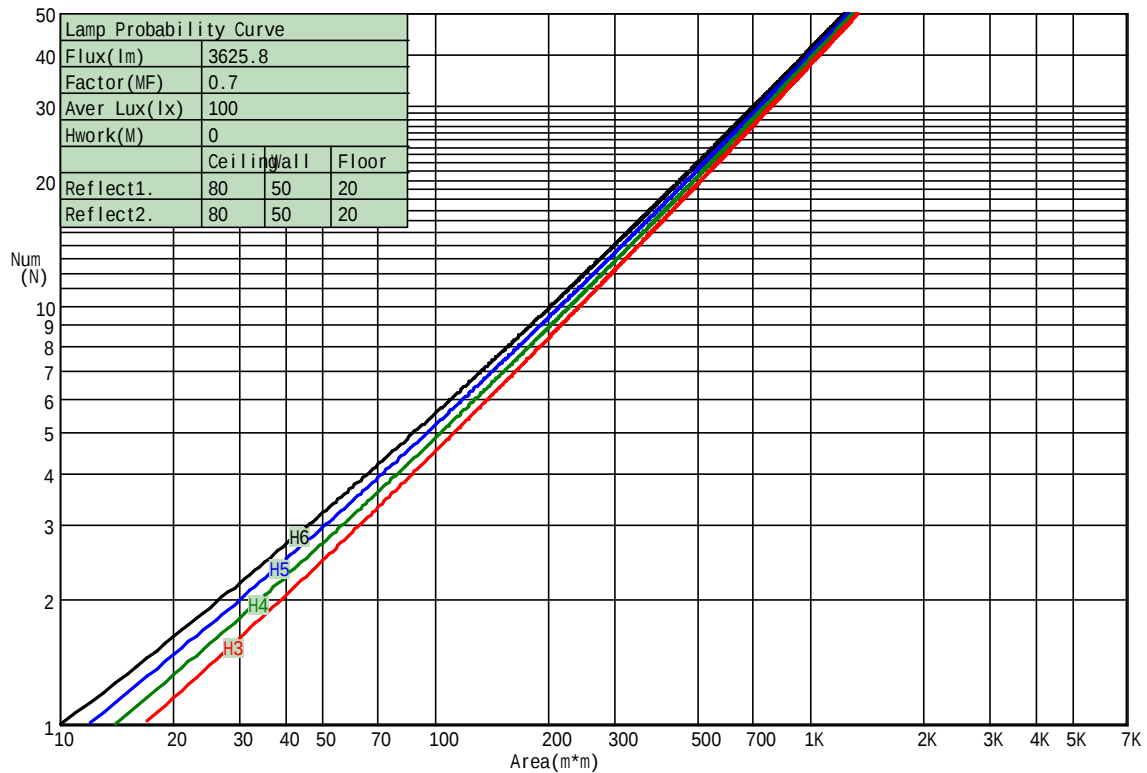
Humidity(%): 60

Date: 2026-7-15

Remark:

Measured Para U: 225.8V I: 382.0mA P: 45.00W PF: 0.521 Test LM: 3625.84lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-50EMS01-Y	Lamp Spec: LPDL-50EMS01-Y	Shape Size:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Lamp Probability Curve



Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-7-15

Remark:

Measured Para U: 225.8V I: 382.0mA P: 45.00W PF: 0.521 Test LM: 3625.84lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-50EMS01-Y	Lamp Spec: LPDL-50EMS01-Y	Shape Size:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

UF Table

Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5
Wall	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3
Floor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
0.60	52	37	28	51	37	28	48	35	27
0.80	57	41	30	55	40	29	51	38	28
1.00	60	43	31	58	42	31	53	39	29
1.25	63	45	32	60	44	31	55	41	30
1.50	65	47	33	62	45	32	56	42	30
2.00	68	49	34	64	47	33	57	43	31
2.50	70	50	34	65	48	33	58	43	30
3.00	71	51	34	66	48	33	58	43	30
4.00	72	52	35	67	49	33	59	44	30
5.00	73	53	35	68	50	33	59	44	30

CoEfficients Utilization

Ceiling(%)		0			0			0			0			0	
Wall(%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floor (%)		0			0			0			0			0	
0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02
1	1.03	0.98	0.94	1.01	0.96	0.93	0.96	0.93	0.9	0.92	0.9	0.87	0.89	0.86	0.84
2	0.89	0.82	0.76	0.87	0.81	0.75	0.84	0.78	0.73	0.8	0.76	0.72	0.77	0.73	0.7
3	0.78	0.69	0.63	0.76	0.69	0.62	0.73	0.67	0.61	0.71	0.65	0.6	0.68	0.63	0.59
4	0.69	0.6	0.53	0.68	0.59	0.53	0.65	0.58	0.52	0.63	0.56	0.51	0.6	0.55	0.5
5	0.61	0.52	0.45	0.6	0.52	0.45	0.58	0.5	0.45	0.56	0.49	0.44	0.54	0.48	0.44
6	0.55	0.46	0.39	0.54	0.46	0.39	0.52	0.45	0.39	0.51	0.44	0.39	0.49	0.43	0.38
7	0.5	0.41	0.35	0.49	0.41	0.35	0.48	0.4	0.34	0.46	0.39	0.34	0.45	0.39	0.34
8	0.46	0.37	0.31	0.45	0.37	0.31	0.44	0.36	0.31	0.42	0.35	0.3	0.41	0.35	0.3
9	0.42	0.33	0.28	0.41	0.33	0.28	0.4	0.33	0.28	0.39	0.32	0.27	0.38	0.32	0.27
10	0.39	0.31	0.25	0.38	0.3	0.25	0.37	0.3	0.25	0.36	0.3	0.25	0.35	0.29	0.25

Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-7-15

Remark:

Measured Para U: 225.8V I: 382.0mA P: 45.00W PF: 0.521 Test LM: 3625.84lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-50EMS01-Y	Lamp Spec: LPDL-50EMS01-Y	Shape Size:
Manufactory: LIPER	Sur(m ²):	Protect Angle(Deg):

Wall Exitance CoEfficients

Ceiling(%)		0			0			0			0			0	
Wall(%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floor (%)		0			0			0			0			0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.33	0.19	0.06	0.32	0.18	0.06	0.31	0.18	0.06	0.3	0.17	0.05	0.29	0.17	0.05
2	0.3	0.17	0.05	0.3	0.16	0.05	0.29	0.16	0.05	0.28	0.15	0.05	0.27	0.15	0.05
3	0.28	0.15	0.04	0.27	0.15	0.04	0.26	0.14	0.04	0.25	0.14	0.04	0.24	0.14	0.04
4	0.26	0.13	0.04	0.25	0.13	0.04	0.24	0.13	0.04	0.23	0.13	0.04	0.22	0.12	0.04
5	0.24	0.12	0.03	0.23	0.12	0.03	0.22	0.12	0.03	0.22	0.11	0.03	0.21	0.11	0.03
6	0.22	0.11	0.03	0.21	0.11	0.03	0.21	0.11	0.03	0.2	0.1	0.03	0.19	0.1	0.03
7	0.2	0.1	0.03	0.2	0.1	0.03	0.19	0.1	0.03	0.19	0.1	0.03	0.18	0.09	0.03
8	0.19	0.09	0.03	0.19	0.09	0.03	0.18	0.09	0.03	0.17	0.09	0.03	0.17	0.09	0.03
9	0.18	0.09	0.02	0.17	0.08	0.02	0.17	0.08	0.02	0.16	0.08	0.02	0.16	0.08	0.02
10	0.17	0.08	0.02	0.16	0.08	0.02	0.16	0.08	0.02	0.15	0.08	0.02	0.15	0.08	0.02

Ceiling Cavity Exitance CoEfficients

Ceiling(%)		0			0			0			0			0	
Wall(%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Floor (%)		0			0			0			0			0	
0	0.19	0.19	0.19	0.16	0.16	0.16	0.11	0.11	0.11	0.06	0.06	0.06	0.02	0.02	0.02
1	0.18	0.16	0.13	0.16	0.13	0.11	0.11	0.09	0.08	0.06	0.05	0.05	0.02	0.02	0.01
2	0.17	0.13	0.1	0.15	0.11	0.08	0.1	0.08	0.06	0.06	0.05	0.03	0.02	0.01	0.01
3	0.17	0.11	0.07	0.14	0.1	0.06	0.1	0.07	0.04	0.06	0.04	0.03	0.02	0.01	0.01
4	0.16	0.1	0.06	0.14	0.09	0.05	0.09	0.06	0.04	0.05	0.04	0.02	0.02	0.01	0.01
5	0.15	0.09	0.05	0.13	0.08	0.04	0.09	0.05	0.03	0.05	0.03	0.02	0.02	0.01	0.01
6	0.14	0.08	0.04	0.12	0.07	0.03	0.09	0.05	0.02	0.05	0.03	0.01	0.02	0.01	0
7	0.14	0.08	0.03	0.12	0.07	0.03	0.08	0.05	0.02	0.05	0.03	0.01	0.02	0.01	0
8	0.13	0.07	0.03	0.11	0.06	0.02	0.08	0.04	0.02	0.05	0.03	0.01	0.01	0.01	0
9	0.12	0.06	0.02	0.11	0.06	0.02	0.07	0.04	0.02	0.04	0.02	0.01	0.01	0.01	0
10	0.12	0.06	0.02	0.1	0.05	0.02	0.07	0.04	0.01	0.04	0.02	0.01	0.01	0.01	0

Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-7-15

Remark:

Measured Para U: 225.8V I: 382.0mA P: 45.00W PF: 0.521 Test LM: 3625.84lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-50EMS01-Y	Lamp Spec: LPDL-50EMS01-Y	Shape Size:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

Ring-shaped Flux Data Table

Gm\C(Deg)	0	45	90	135	180	225	270	315	Range	Ring	T(lm)
5	1206	1196	1193	1204	1203	1201	1199	1199	0-5	28.8	28.8
10	1193	1178	1175	1191	1185	1187	1186	1181	5-10	85.3	114
15	1169	1151	1148	1169	1158	1164	1164	1153	10-15	139	253
20	1135	1114	1111	1137	1121	1132	1131	1115	15-20	188	441
25	1091	1068	1065	1095	1075	1089	1089	1068	20-25	231	673
30	1039	1014	1011	1045	1019	1037	1037	1012	25-30	267	939
35	978	952	949	986	956	975	977	947	30-35	293	1232
40	910	883	881	920	885	906	909	874	35-40	310	1543
45	835	808	806	847	808	830	832	795	40-45	318	1860
50	753	727	726	768	725	747	750	710	45-50	315	2175
55	668	642	642	685	637	660	661	620	50-55	302	2478
60	578	554	555	597	547	567	569	525	55-60	280	2758
65	486	465	455	507	454	472	473	431	60-65	250	3008
70	392	374	349	416	360	375	376	334	65-70	212	3221
75	298	284	243	325	267	280	279	240	70-75	169	3390
80	208	193	162	235	175	185	184	144	75-80	123	3513
85	118	108	91.9	147	83.4	93.9	91.6	61.3	80-85	77.3	3591
90	57.1	37.7	45.4	62.3	21.1	40.7	26.8	23.9	85-90	35.2	3626
95									90-95		
100									95-100		
105									100-105		
110									105-110		
115									110-115		
120									115-120		
125									120-125		
130									125-130		
135									130-135		
140									135-140		
145									140-145		
150									145-150		
155									150-155		
160									155-160		
165									160-165		
170									165-170		
175									170-175		
180									175-180		

Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zyg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-7-15

Remark:

Measured Para U: 225.8V I: 382.0mA P: 45.00W PF: 0.521 Test LM: 3625.84lm		
Lamp Name: LED DOWN LIGHT	Lamp Type:	Weight(kg):
Lamp ID: LPDL-50EMS01-Y	Lamp Spec: LPDL-50EMS01-Y	Shape Size:
Manufactory: LIPER	Sur(m^2):	Protect Angle(Deg):

CD Table

Gm\C(Deg)	0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340
5.0	1206	1202	1197	1195	1194	1195	1200	1204	1203	1203	1202	1201	1200	1199	1199	1199	1200	1203
10.0	1193	1187	1180	1177	1176	1179	1186	1191	1188	1185	1186	1187	1187	1187	1185	1183	1183	1188
15.0	1169	1161	1153	1150	1148	1152	1162	1168	1163	1158	1161	1164	1164	1164	1161	1157	1155	1162
20.0	1135	1126	1116	1113	1112	1117	1128	1135	1128	1121	1126	1130	1131	1131	1128	1121	1118	1127
25.0	1091	1081	1071	1067	1066	1072	1085	1093	1083	1075	1081	1087	1089	1089	1084	1075	1070	1081
30.0	1039	1028	1017	1013	1012	1018	1034	1042	1030	1019	1027	1035	1037	1037	1032	1020	1015	1027
35.0	978	967	955	951	950	957	974	983	969	956	964	973	976	977	970	957	950	964
40.0	910	898	886	882	881	889	907	916	900	885	894	904	907	908	901	886	878	894
45.0	835	823	811	807	807	815	834	843	825	808	818	827	831	832	824	807	800	817
50.0	753	742	730	727	727	736	755	764	744	725	735	745	748	749	741	723	715	734
55.0	668	657	645	642	642	652	671	680	658	637	647	657	660	661	652	633	625	647
60.0	578	568	557	554	555	564	583	591	569	547	556	565	568	568	559	540	531	555
65.0	486	476	467	462	457	467	490	501	477	454	462	470	473	473	464	445	437	462
70.0	392	384	376	366	354	363	394	410	385	360	367	374	376	376	367	348	341	367
75.0	298	292	285	270	252	261	298	319	292	267	272	278	279	279	270	253	246	272
80.0	208	202	195	183	169	178	211	228	201	175	179	184	185	185	176	158	151	180
85.0	118	114	109	103	95.4	104	129	140	111	83.4	88	92.7	93.2	92.1	85	71.3	67.5	93.4
90.0	57.1	48.6	39.8	40.2	43.7	49.1	56.8	57.8	39.1	21.1	29.6	38.5	36.1	29.8	26.2	24.8	27.5	42.5
95.0																		
100.0																		
105.0																		
110.0																		
115.0																		
120.0																		
125.0																		
130.0																		
135.0																		
140.0																		
145.0																		
150.0																		
155.0																		
160.0																		
165.0																		
170.0																		
175.0																		
180.0																		

Gama Angle Range:-90 - 90(Deg)

Gama interval(Deg): 1

Temperature(Deg): 30

Tester: zxcg

Distance(m): 7.000

Test System: ZWL Goniophotometer System V3.0

C Angle Range:0 - 180(Deg)

C interval(Deg): 45

Humidity(%): 60

Date: 2026-7-15

Remark: